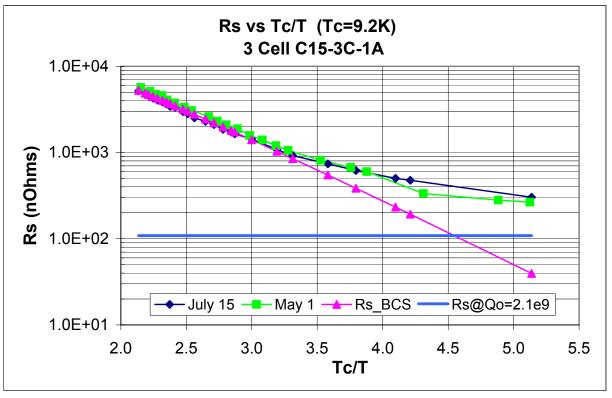
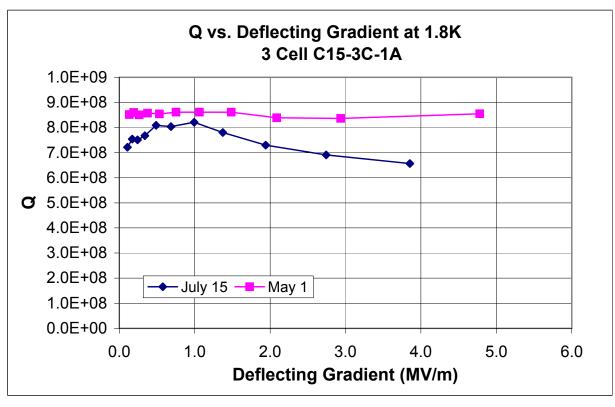
#### A Note on the 7/15/2002 RF Measurements of C15-3C-1A

Measurements of Q vs. T, Q vs. E, and microphonics were performed on C15-3C-1A on July 15, 2002. Attached are graphs of the resulting data.

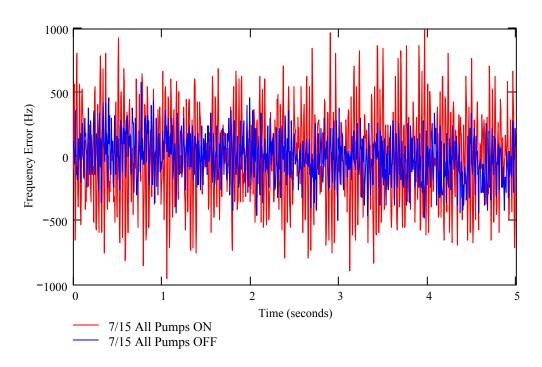
- ➤ The graphs of Q vs. T and Q vs. E include measurements from May 1, 2002 for comparison. On both dates the maximum deflecting gradient was limited by breakdown during which no x-rays were seen.
- The microphonics measurements include the following:
  - A comparison of the conditions "All Pumps&Blowers ON" and "All Pumps&Blowers OFF"
  - o Individual Pump&Blower contributions to the frequency error were investigated. Due to the configuration of the cryogenic system, the following comparison of conditions were made (Pump 1 cannot be turned off without turning all other pumps off, but pumps 2 & 3 can be turned off independent of the other pumps)
    - Comparison of "Pump&Blower1 ON" and "All Pumps&Blwrs OFF"
    - Comparison of "Pump&Blower2 OFF" and "All Pumps&Blwrs ON"
    - Comparison of "Pump&Blower3 OFF" and "All Pumps&Blwrs ON"
  - The blowers associated with pumps 1 and 3 can be turned off independent of the pumps and thus comparisons of the condition "All Pumps&Blowers ON" and each of these blowers being off were made.
  - O A comparison of these July 15, 2002 measurements and the May 1, 2002 measurements is included. The relative magnitudes between these measurements cannot truly be compared since the mixer levels were different between the two measurement dates. The July 15, 2002 measurements saturated the inputs to the mixer used as the phase-detector to minimize the mixer output dependence on input amplitude. What can be compared between these measurements is the frequency spectrum. If anything can be said about the relative magnitudes it is that the May 1 data may be an underestimate compared to July 15 since the mixer input signals were much weaker on May 1 compared to July 15.

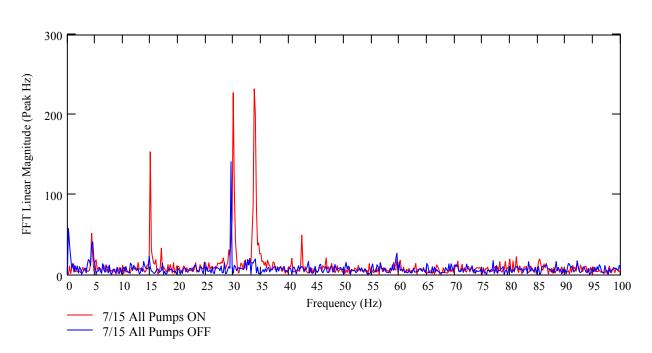
### 3 Cell C15-3C-1A



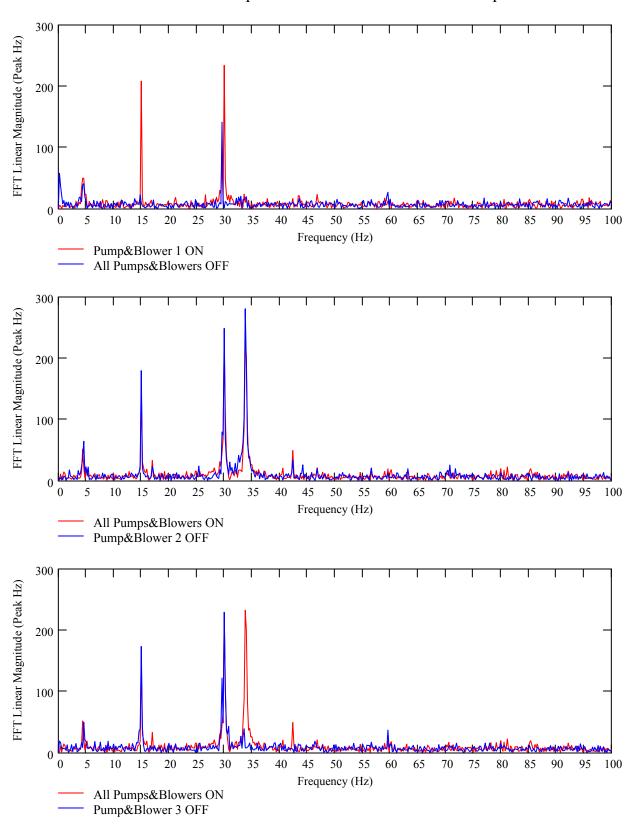


#### Cavity C15-3C-1A Microphonics Investigations 7/15/2002

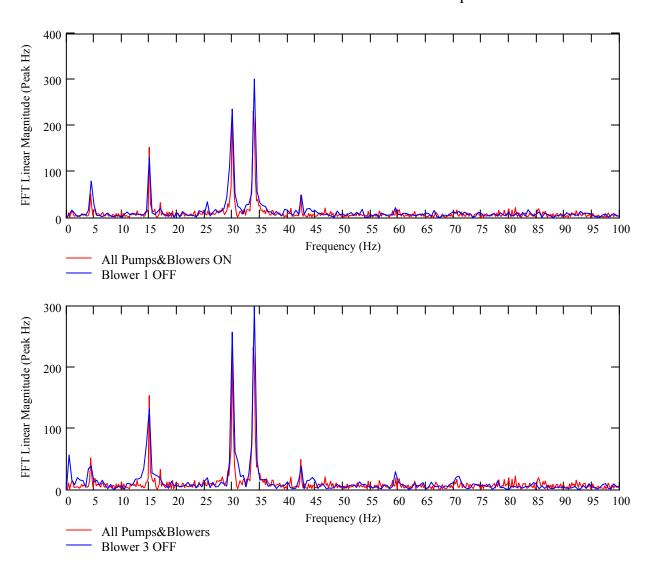




### C15-3C-1A Microphonics Investigations 7/15/2002 Individual Pump&Blower Contributions to Microphonics



## C15-3C-1A Microphonics Investigations 7/15/2002 Individual Blower Contributions to Microphonics



# Cavity C15-3C-1A Microphonics Investigations 5/1/2002 & 7/15/2002 Comparisons

